

REMARKS

Reexamination and reconsideration of this application as amended is requested. By this amendment, Claims 1-2, 14-16, 18, 20-22, 26, and 29-31 have been amended. No new matter has been added. After this amendment, Claims 1-33 remain pending in this application.

Claim Rejections - 35 USC § 103

The Examiner rejected Claims 1-6, 9-14, 16, 26, and 29-30 under 35 U.S.C. 103(a) as being unpatentable over Jones et al., U.S. Pat. No. 6,512,776, in view of Imai et al., U.S. Patent No. 6,862,279.

(1-18, 25-27) Applicant has amended Claims 1 and 29 to more clearly and distinctly recite the present invention. Amended Claims 1 and 29 more clearly and distinctly recite “the first request requesting the first item of information to be delivered to the first networked device as an ordinary unicast packet”; the second request requesting at least a part of the first item of information to be delivered to the second networked device as an ordinary unicast packet”; “forming a combined packet, in response to the first request from the first networked device and the second request from the second networked device, the combined packet comprising a reliable multicast packet including a packet header comprising a first network address used for the first networked device, a second network address used for the second networked device, and the combined packet further comprises a data payload that includes at least a part of the first item of information, for delivering the data payload to multiple networked devices, wherein the at least part of the first item of information included in the data payload being destined for reception by the first networked device in a first ordinary unicast packet, and further wherein the at least part of the first item of information included in the data payload being destined for reception by the second networked device in a second ordinary unicast packet”.

Support for these amendments may be found in the specification as originally filed. See for example page 12, lines 2-4; page 14, lines 1-31; and page 15, lines 1-3. No new matter was added.

Jones teaches conventional multicasting where a single multicast address is used in the header of the multicast packet. The Office Action correctly states on page 2 that "Jones does not teach forming a combined packet including a first address used for the first networked device, and second address used for the second networked device, and a data payload that includes at least a part of the first item of information, for delivering the data payload to multiple networked devices."

However, the Office Action goes on to combine Jones with Imai stating that "it would have been obvious to one of ordinary skill in the art to adapt to Jones system, Imai's concept of destination addresses in the header to save time in delivering the same information to several different stations (col. 3, lines 4-67).

Imai explicitly teaches that multicast route information is not used, that is, multicast distribution is realized by the unicast route information only. See Imai at col. 3, lines 20-22. A packet having a plurality of address lists is relayed to the packet header to be transferred according to the unicast route. Imai also includes an undistributed bitmap in the packet.

In contrast, Claims 1 and 29, as now amended, recite that a first request for a first item of information is received from a first networked device and a second request for at least a part of the first item of information is received from a second networked device. The first request requests that the first item of information to be delivered to the first networked device as an ordinary unicast packet. Similarly, the second request requests that the at least a part of the first item of information to be delivered to the second networked device as an ordinary unicast packet. A combined packet is formed, in

response to the first request from the first networked device and the second request from the second networked device. The combined packet comprises a reliable multicast packet including a packet header. The packet header comprises a first network address used for the first networked device and a second network address used for the second networked device. The combined packet further comprises a data payload that includes at least a part of the first item of information, for delivering the data payload to multiple networked devices. The at least part of the first item of information included in the data payload is destined for reception by the first networked device in a first ordinary unicast packet. The at least part of the first item of information included in the data payload is destined for reception by the second networked device in a second ordinary unicast packet. The combined packet comprises a multicast packet.

In other words, the networked devices are requesting information to be delivered to the networked devices via unicast packets and in response to those requests, the present invention utilizes a novel multicast packet for transmitting the requested content, which will be received by the requesting networked device as unicast packets. The requesting devices are requesting unicast but multicast is used instead, thereby having the advantage of saving bandwidth.

Nowhere does Jones alone or in combination with Imai teach the above claim elements as now amended for Claims 1 and 29. Jones clearly teaches conventional multicasting. Additionally, Jones teaches streams of data in which each destination receives many packets for "long lived" multicast groups. See Jones, for example, at the Abstract. Jones alone or in combination with Imai does not teach requesting a first item and at least part of that first item then forming a combined packet in response to these requests that includes at least a part of the first requested item, as recited for Claims 1 and 29. Conventional multicast as taught by Jones, and multicasting as taught by Imai, is used for transmitting a large amount of data to multiple destinations that subscribe to the multicast server. This is different than the transmitting of an item of information, as recited for Claims 1 and 29.

Furthermore, nowhere does Imai teach, anticipate, or suggest that networked devices request an item of information to be delivered as an ordinary unicast packet, forming a combined packet including a multicast packet in response to the requests by the network devices and delivering the item of information in the combined packet to the requesting devices as an ordinary unicast packet. Therefore, in view of the foregoing remarks and amendments, Applicant believes that the rejection of Claims 1 and 29 under 35 U.S.C. § 103(a) has been overcome. Applicant requests that the Examiner withdraw the rejection and allow Claims 1 and 29.

Additionally, Claims 2-6 and 9-14 depend from Claim 1, and, since dependent claims recite all of the limitations of the independent claim; it is believed that, therefore, Claims 2-6 and 9-14 also recite in allowable form. However, additional remarks regarding Claims 12-13 are provided below.

Claims 12-13 recite “receiving a request for web content” and “receiving an http request” respectively. Nowhere does Jones teach, anticipate, or suggest “receiving a request for web content” and/or “receiving an http request”. In fact, Jones teaches using multicast for broadcast oriented traffic as opposed to unicast-oriented traffic, for example, http traffic, as recited for the present invention. See Jones at Abstract. Additionally, Jones teaches using multicast for UDP traffic and nowhere does Jones teach how multicasting would be used for TCP traffic such as web content and http. Conventional multicast, as taught by Jones, is commonly used for UDP traffic, however, Jones does not teach using multicast, as taught by the present invention, for web content and http requests. Accordingly, Claims 12-13 are distinguishable over Jones alone or in combination with Imai. Applicant requests that the Examiner withdraw the rejection and allow Claims 12-13.

(19-21, 28-30) Regarding Claims 16 and 30, the Office Action states that Jones teaches, “receiving a data content part of a first packet; receiving a first destination address part of

the first packet, wherein the first destination address is used for a first networked device; receiving a second destination address part of the first packet, wherein the second destination address is used for a second networked device" and cites to col. 4, lines 32-43 of Jones in support thereof.

Applicant has amended Claims 16 and 30 to further clarify the present invention. Claims 16 and 30 now recite "the first packet comprising a reliable multicast packet" and "[d]estination network address". Nowhere does Jones teach, anticipate, or suggest the above claim elements of Claims 16 and 30, as asserted by the Office Action. In fact Jones teaches at col. 4, lines 32-43 that a single multicast data stream replaces the UDP packets from a first and second data stream. The clients monitor a MAC address to receive their packets. In other words, Jones teaches a single multicast address and not a first packet that comprises a reliable multicast packet with a first destination network address part and a second destination network address part, as recited for amended Claims 16 and 30. Therefore, Claims 16 and 30 distinguish over Jones for at least this reason.

The Office Action goes on to combine Jones with Imai stating that Jones doesn't teach receiving a first and second reliable unicast header part associated with the first and second addresses respectively, but that Imai teaches multicasting messages using multiple headers and a single payload. The Office Action goes on to state that "it would have been obvious...to adapt to Jones's system Imai's concept of multiple headers to ensure proper delivery of the message to the designated destination and maintain the tracking information within the system".

However, nowhere does Imai teach "the first packet comprising a reliable multicast packet" or a "reliable unicast header part" as recited for Claims 16 and 30. The specification as originally filed states on page 8, lines 30-31 and page 9, lines 1-4, that a reliable unicast header includes, for example, TCP header information. The TCP header information is used for connection management purposes. Additionally, the TCP header

information preferably provides per destination tracking information, e.g. for tracking the flow of data to a particular destination such as the first and second networked devices in the network. The use of multiple headers in Imai is not the same and does not read on “reliable unicast header” as recited for Claims 16 and 30. Nowhere, does Imai state that reliability results from using multiple headers. Imai’s use of multiple headers allows multicast distribution to be realized by unicast route information. Therefore, Claims 1 and 16 distinguish over Imai for at least this reason.

Accordingly, neither Jones nor Imai, alone or in any combination thereof teach, anticipate, or suggest the present invention as recited for Claims 16 and 30. Therefore, Applicant believes that the rejection under 35 U.S.C. § 103(a) has been overcome. Applicant respectfully requests that this rejection be withdrawn.

(22-24) Regarding Claim 26, the Office Action acknowledges that Jones does not teach a packet manager for combining the first destination address, the second destination address, and the item of information in a packet; and a network interface for transmitting the packet. However, the Office Action goes on to combine Jones with Imai to overcome the deficiencies of Jones.

Applicant has amended Claim 26 to more clearly and distinctly recite “destination network address” and “a packet comprising a reliable multicast packet, the reliable multicast packet including a packet header comprising the first destination network address and the second destination network address, wherein the item of information is to be received at the first destination address in a first ordinary unicast packet and at the second destination address in a second ordinary unicast packet”.

The above arguments and remarks regarding Claims 1 and 29, and more specifically with respect to the claim language “destination network address”, “reliable multicast packet”, and “the first item of information included in the data payload being destined for reception by the first networked device in a first ordinary unicast packet, and

further wherein the at least part of the first item of information included in the data payload being destined for reception by the second networked device in a second ordinary unicast packet" are likewise applicable here in support of the allowability of Claim 26. These applicable arguments have already been presented above and will not be repeated here.

Imai explicitly teaches that multicast route information is not used, that is, multicast distribution is realized by the unicast route information only. See Imai at col. 3, lines 20-22. Imai's use of multiple headers allows multicast distribution to be realized by unicast route information.

Accordingly, neither Jones nor Imai, alone or in any combination thereof teach, anticipate, or suggest the present invention as recited for Claim 26. Therefore, Applicant believes that the rejection under 35 U.S.C. § 103(a) has been overcome. Applicant respectfully requests that this rejection be withdrawn.

(31-33) The Examiner rejected Claim 17 under 35 U.S.C. 103(a) as being unpatentable over Jones et al., U.S. Pat. No. 6,512,776, in view of Imai U.S. Pat. No. 6,862,279, and further in view of Chao et al., U.S. Pat No. 6,389,031. This rejection is respectfully traversed.

Claim 17 depends from Claim 16 and since dependent claims recite all of the limitations of the independent claim, it is believed that, therefore, Claim 17 is distinguishable from any single reference or any arguable combination of Jones Imai, as has been already discussed above with respect to Claim 16. However, additional arguments regarding Claim 17 are given below.

The Examiner repeats her rejection of independent Claim 16 for dependent Claim 17, but acknowledges that Jones and Imai do not teach a "TCP header". With respect to Jones and Imai, the above arguments and remarks regarding Claim 16 are likewise

applicable here in support of the allowability of Claim 17. These applicable arguments have already been presented above and will not be repeated here.

Chao teaches a TCP header in the context of fairly servicing queues at an output port of a switch or router and not in the context of presently claimed invention as recited for Claim 17. In other words, Chao merely teaches that TCP exists. Therefore, one of ordinary skill in the art would have **no** motivation to combine these references. Dependent claims recite the limitation of their independent claim, and Claim 17 is further limiting the step recited in Claim 16 of receiving the first reliable unicast header part to also include receiving a first TCP header. Chao does not teach or suggest receiving a first reliable unicast header part of the first packet that corresponds to the first destination address further comprising the sub-step of receiving a first TCP header.

When there is no suggestion or teaching in the prior art for “receiving the first reliable unicast header part” further comprising “receiving a first TCP header” the suggestion can not come from the Applicant’s own specification. The Federal Circuit has repeatedly warned against using the Applicant’s disclosure as a blueprint to reconstruct the claimed invention out of isolated teachings of the prior art. See MPEP §2143 and *Grain Processing Corp. v. American Maize-Products*, 840 F.2d 902, 907, 5 USPQ2d 1788 1792 (Fed. Cir. 1988) and *In re Fitch*, 972 F.2d 160, 12 USPQ2d 1780, 1783-84 (Fed. Cir. 1992).

Therefore, Jones, Imai, and Chao either alone or in any combination thereof do not teach or suggest the claimed invention as recited for Claim 17 nor is there any suggestion to combine these references. Accordingly, Applicant believes that the rejection under 35 U.S.C. § 103(a) has been overcome. Applicant respectfully requests that this rejection be withdrawn.

(34-36) The Examiner rejected Claim 18 under 35 U.S.C. 103(a) as being unpatentable over Jones et al., U.S. Pat. No. 6,512,776 in of Imai U.S. Pat. No. 6,862,279, and in

further view of Bryden et al., U.S. Pat No. 6,717,944. This rejection is respectfully traversed.

Claim 18 depends from Claim 16 and it is believed that, therefore, Claim 18 is distinguishable from any single reference or any arguable combination of Jones and Imai, as has been already discussed above with respect to Claim 16. However, additional arguments regarding Claim 18 are given below.

The Examiner repeats her rejection of independent Claim 16 for dependent Claim 18, but acknowledges that Jones and Imai do not teach a "determining a first and second next hop based on the first and second destination addresses". With respect to Jones and Imai, the above arguments and remarks regarding Claim 16 are likewise applicable here in support of the allowability of Claim 18. These applicable arguments have already been presented above and will not be repeated here.

Bryden teaches determining the next hop address based on the destination address in the context of dynamically allocating virtual circuits, which is a completely different context than the presently claimed invention as recited for Claim 18. Jones teaches using a single multicast group address for multicasting information in a network and Imai teaches not using multicast routing information, but using unicast route information for realizing multicast distribution in a network. Therefore, one of ordinary skill in the art would have **no** motivation to combine Bryden's determination of the next hop address based on the destination address in the context of dynamically allocating virtual circuits with Jones and Imai.

Bryden teaches a unicast protocol message (**unicast messages only contain one destination address**) and determining the next hop based on the single destination address in the unicast message. Bryden does not teach determining a first next hop and then a second next hop based on the first and second destination network addresses.

respectively. The first and second destination network addresses are part of a first packet comprising a reliable multicast packet, as recited for Claim 16.

Once again Applicant respectfully reminds the Examiner that the Federal Circuit has repeatedly warned against using the Applicant's disclosure as a blueprint to reconstruct the claimed invention out of isolated teachings of the prior art. See MPEP §2143 and *Grain Processing Corp. v. American Maize-Products*, 840 F.2d 902, 907, 5 USPQ2d 1788 1792 (Fed. Cir. 1988) and *In re Fitch*, 972 F.2d 160, 12 USPQ2d 1780, 1783-84 (Fed. Cir. 1992).

Therefore, Jones, Imai, and Bryden either alone or in any combination thereof do not teach or suggest the claimed invention as recited for Claim 18 nor is there any suggestion to combine these references. Accordingly, Applicant believes that the rejection under 35 U.S.C. § 103(a) has been overcome. Applicant respectfully requests that this rejection be withdrawn.

Accordingly, in view of the amendments and remarks above, since Jones, Imai, Chao, and Bryden either taken alone or in any combination thereof, do not teach, anticipate, or suggest, the presently claimed invention as recited for Claims 1-6, 9-14, 16-18, 26, and 29-30, Applicant believes that the rejection of Claims 1-6, 9-14, 16-18, 26, and 29-30 under 35 U.S.C. 103(a) has been overcome. The Examiner should withdraw the rejection of these claims.

Allowable/Allowed Subject Matter

(37) The Examiner objected to Claims 7, 8, 15, 19-22, and 33, as being dependent on a rejected base claim, but indicated that these claims would be allowable if rewritten in independent form including all limitations of the base claim and any intervening claims.

In view of the amendment and remarks above, Applicant believes that Claims 7,

8, 15, 19-22, and 33 now recite in allowable form. Accordingly, Applicant requests that the Examiner withdraw the objection to these claims.

Additionally, Applicant has amended objected to Claims 15, 20-22, and 31 only for the purposes of reflecting the changes in their amended independent claims. For example, in Claim 15, "first address" and "second address" have been amended to recite "first network address" and "second network address". Claims 20-22 and 31 have been similarly amended. Applicant agrees to the allowability of these claims, as stated by the Examiner, and reserves the right to amend these claims back to their original form without prejudice.

(38) Additionally, Applicant wishes to acknowledge and thank the Examiner for expressly allowing Claims 23-25, 27-28, and 32-33.

Conclusion

The foregoing is submitted as full and complete response to the Official Action mailed May 17, 2005, and it is submitted that Claims 1-33 are in condition for allowance. Reconsideration of the rejection is requested. Allowance of Claims 1-33 is earnestly solicited.

No amendment made was related to the statutory requirements of patentability unless expressly stated herein. No amendment made was for the purpose of narrowing the scope of any claim, unless Applicant has argued herein that such amendment was made to distinguish over a particular reference or combination of references.

Applicant acknowledges the continuing duty of candor and good faith to disclose information known to be material to the examination of this application. In accordance with 37 CFR § 1.56, all such information is dutifully made of record. The foreseeable equivalents of any territory surrendered by amendment are limited to the territory taught

by the information of record. No other territory afforded by the doctrine of equivalents is knowingly surrendered and everything else is unforeseeable at the time of this amendment by the Applicant and the attorneys.

The present application, after entry of this amendment, comprises thirty-three (33) claims, including eight (8) independent claims. Applicant has previously paid for thirty-three (33) claims including eight (8) independent claims. Applicant, therefore, believes that a fee for claims amendment is currently not due.

If the Examiner believes that there are any informalities that can be corrected by Examiner's amendment, or that in any way it would help expedite the prosecution of the patent application, a telephone call to the undersigned at (561) 989-9811 is respectfully solicited.

The Commissioner is hereby authorized to charge any fees that may be required or credit any overpayment to Deposit Account **50-1556**.

In view of the preceding discussion, it is submitted that the claims are in condition for allowance. Reconsideration and re-examination is requested.

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